A Dichotomous Key To The Species Of Lemnaceae In California © W.P. Armstrong, 2004 Roots Present Roots Absent Roots 2-16 PI Flattened PI globose to Root Solitary Spirodela & (3-10 mm) ovoid (1 mm) Lemna Wolffiella Wolffia Landoltia Pls in clusters of Pls in clusters of PI broad 4-10 mm; PI linear 3-5 mm; Pls punctate: Roots 5-16: Roots 2-5; Pls without bud pouch 40-70 O bud pouch 80-120 o with pigment cells 10-30; stalks long 2-8 with very short Pls 5-10 mm Pls 3-5 mm pigment cells stalks (sessile) W. lingulata W. oblonga * (on dead pls) Lemna trisulca Spirodela polyrrhiza Landoltia punctata Dorsum dark green & Dorsum transparent & Dorsum with papule Dorsum flattened Vein 1 Veins 3-5 flattened: stoma > 15 rounded; stoma 1-15 W. borealis W. brasiliensis W. arrhiza PI 1-2 mm gen in 2's; PI 2-4 mm in 4's-8's: Root sheath with Root sheath without PI 0.4 - 0.8 mm long PI 0.8 - 1.3 mm long vein 2/3 node to apex vein 3/4 node to apex 2 lateral wings lateral wings at the W. globosa W. columbiana L. minuta L. valdiviana L. aequinoctialis base of root. Terms Used in This Flow Chart: Abbreviations Used in This Flow Chart: Plant Bodies Connected in 2's, 4's or more. PL = Plant Body * Wollfiella gladiata: Pl 4-9 mm long, 6-15 times longer than wide; budding pouch angle 25-500; MM = Length in Millimeters Plant Bodies Connected by a Stalk or Stipe. Pl gibbous Plants With Short Stipes Appear Sessile. known from Thurston County, Washington. PI nongibbous STOM = Stomata L. gibba Vein Distance From Node to Apex (Tip). ANTHO = Reddish Anthocyanin Pigment Node: Point of Root Attachment. DEG = Degrees (Angle of Budding Pouch) ** Lemna obscura: Prominent apical papule; Root Sheath: Base of Root in Lemna. BUD = Budding Pouch at Basal End ventral surface becoming reddish; without Pigment Cells: Brown Dots On Dead Plants GEN = Generally turions; known from Hawaiian Islands. Gibbous: Swollen Plant Body (Lower Side) BROAD = Broadly Oblong PI with turions: Without turions; Dorsum: Upper Side of Plant Body. ventrum not red ventrum w/antho Ventrum: Lower Side of Plant Body L. turionifera L. minor **